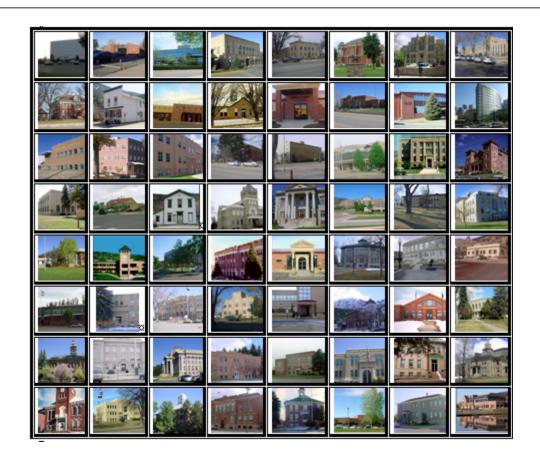


# 2009 CUSTER COUNTY PROPERTY ASSESSMENT STUDY







September 15, 2009

Mr. Mike Mauer Director of Research Colorado Legislative Council Room 029, State Capitol Building Denver, Colorado 80203

RE: Final Report for the 2009 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2009 Colorado Property Assessment Study.

These reports are the result of two analyses: A procedural audit and a statistical audit.

The procedural audit examines all classes of property. It specifically looks at how the assessor develops economic areas, confirms and qualifies sales, develops time adjustments and performs periodic physical property inspections. The audit reviews the procedures for determining subdivision absorption and subdivision discounting. Valuation methodology is examined for residential properties and commercial properties. Procedures are reviewed for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims.

Statistical audits are performed on vacant land, residential properties, commercial/industrial properties and agricultural land. A statistical analysis is performed for personal property compliance on the eleven largest counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. The remaining counties receive a personal property procedural study.

Wildrose Appraisal Inc. – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

Harry J. Fuller Project Manager

Harry J. Zulla

Wildrose Appraisal Inc. – Audit Division



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# INTRODUCTION



The State Board of Equalization (SBOE) reviews assessments for conformance to the Constitution. The SBOE will order revaluations for counties whose valuations do not reflect the proper valuation period level of value.

The statutory basis for the audit is found in C.R.S. 39-1-104 (16)(a)(b) and (c).

The legislative council sets forth two criteria that are the focus of the audit group:

To determine whether each county assessor is applying correctly the constitutional and statutory provisions, compliance requirements of the State Board of Equalization, and the manuals published by the State Property Tax Administrator to arrive at the actual value of each class of property.

To determine if each assessor is applying correctly the provisions of law to the actual values when arriving at valuations for assessment of all locally valued properties subject to the property tax.

The property assessment audit conducts a twopart analysis: A procedural analysis and a statistical analysis. The procedural analysis includes all classes of property and specifically looks at how the assessor develops economic areas, confirms and qualifies sales, and develops time adjustments. The audit also examines the procedures for adequately discovering, classifying and valuing agricultural outbuildings, discovering subdivision build-out subdivision and discounting procedures. Valuation methodology for vacant land, improved properties commercial residential and properties is examined. Procedures for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests and non-producing patented mining claims are also reviewed.

Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax Administrator.

Wildrose Audit has completed the Property Assessment Study for 2009 and is pleased to report its findings for Custer County in the following report.



# REGIONAL/HISTORICAL SKETCH OF CUSTER COUNTY

#### **Regional Information**

Custer County is located in the Central Mountains region of Colorado. The Central Mountains Region is in the central portion of Colorado. It extends from the northern Gilpin county boundary approximately 210 miles southeasterly to the southern boundary of Colorado, including Chaffee, Clear Creek, Custer, Fremont, Gilpin, Huerfano, Lake, Las Animas, Park, and Teller counties.





#### **Historical Information**

Custer County has a population of approximately 3,926 people with 4.7 people per square mile, according to the U.S. Census Bureau's 2006 estimated population data.

Custer County was created by the Colorado legislature on March 9, 1877 out of the southern half of Fremont County. Originally set in Ula, the county seat moved to Rosita in 1878, and to Silver Cliff in 1886 before settling in Westcliffe in 1928. It was named in honor of Lt. Colonel George Armstrong Custer, who had died the previous year.

The county was the site of a silver rush during the 1870s. Thousands of men poured into the county during this time in the hunt for silver. Some of the notable mines include the Geyser Mine (on the north edge of the town of Silver Cliff), the Bassick Mine (near the ghost town of Querida) and the Bull Domingo (north of Silver Cliff).

During the late 1800s a railroad line was connected through the Grape Creek Canyon but was permanently closed after a few disastrous floods. The old railhouse has been turned into a historical landmark in the town of Westcliffe.

After the mines dried up, the population dropped considerably and was replaced by cattle ranchers. An extensive system of irrigation ditches were built throughout the valley. The tradition of ranching in the Wet Mountain Valley continues to this day.

The county is very rugged and would be virtually inaccessible without roads. The lowest point of the county is around 6,000 feet in elevation, but most of the county is rugged and mountainous. The county seat of Westcliffe is about 7,800 feet and along with nearby town Silver Cliff lies in the Wet Mountain Valley which sits at the base of the Sangre de Cristo Mountains. The peaks of the Sangre de Cristo Mountains to the west reach heights in excess of 14,000 feet with Crestone Peak being the highest at 14,294 feet.

A large percentage of the county is National Forest land in the Sangre de Cristo Mountains on the west side and in the Wet Mountains on the east. The only lake of size is the Deweese Reservoir in the north end of the Wet Mountain Valley. (Wikipedia.org)



# RATIO ANALYSIS

#### Methodology

All significant classes of properties were Sales were collected for each analyzed. property class over the appropriate sale period, which was typically defined as the 18-month period between January 2007 and June 2008. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2008 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and pricerelated differential for each class of property. Counties were not passed or failed by these

latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either "Q" or "C." The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were "lost" because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

#### Conclusions

For this final analysis report, the minimum acceptable statistical standards allowed by the State Board of Equalization are:

ALLOWABLE STANDARDS RATIO GRID				
Property Class	Unweighted Median Ratio	Coefficient of Dispersion		
Commercial/Industrial	Between .95-1.05	Less than 20.99		
Condominium	Between .95-1.05	Less than 15.99		
Single Family	Between .95-1.05	Less than 15.99		
Vacant Land	Between .95-1.05	Less than 20.99		



The results for Custer County are:

Custer County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	30	0.996	1.033	10.4	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	132	1.000	1.009	13.4	Compliant
Vacant Land	164	0.995	1.081	17.5	Compliant

After applying the above described methodologies, it is concluded from the sales ratios that Custer County is in compliance with

SBOE, DPT, and Colorado State Statute valuation guidelines.

#### Recommendations

None

# **Random Deed Analysis**

An additional analysis was performed as part of the Ratio Analysis. Ten randomly selected deeds with documentary fees were obtained from the Clerk and Recorder. These deeds were for sales that occurred from January 1, 2007 through June 30, 2008. These sales were then checked for inclusion on the Assessor's qualified or unqualified database.

#### **Conclusions**

After comparing the list of randomly selected deeds with the Assessor's database, Custer County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

#### Recommendations



# TIME TRENDING VERIFICATION

#### Methodology

While we recommend that counties use the inverted ratio regression analysis method to account for market (time) trending, some counties have used other IAAO-approved methods, such as the weighted monthly median approach. We are not auditing the methods used, but rather the results of the methods used. Given this range of methodologies used to account for market trending, we concluded that the best validation method was to examine the sale ratios for each class across the appropriate sale period. To be specific, if a county has considered and adjusted correctly for market trending, then the sale ratios should remain stable (i.e. flat) across the sale period. If a residual market trend is detected, then the county may or may not have addressed market

trending adequately, and a further examination is warranted. This validation methodology also considers the number of sales and the length of the sale period. Counties with few sales across the sale period were carefully examined to determine if the statistical results were valid.

#### **Conclusions**

After verification and analysis, it has been determined that Custer County has complied with the statutory requirements to analyze the effects of time on value in their county. Custer County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

#### Recommendations



# SOLD/UNSOLD ANALYSIS

#### Methodology

Custer County was tested for the equal treatment of sold and unsold properties to ensure that "sales chasing" has not occurred. The auditors employed a multi-step process to determine if sold and unsold properties were valued in a consistent manner.

All qualified residential and commercial class properties were examined using the unit value method, where the actual value per square foot was compared between sold and unsold properties. A class was considered qualified if it met the criteria for the ratio analysis. The median value per square foot for both groups was compared from an appraisal and statistical perspective. If no significant difference was indicated, then we concluded that no further testing was warranted and that the county was in compliance in terms of sold/unsold consistency.

If either residential or commercial differences were significant using the unit value method, or if data limitations made the comparison invalid, then the next step was to perform a ratio analysis comparing the 2008 and 2009 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample

was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A nonparametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

If a class or sub-class of property was determined to be significantly different by this method, the final step was to perform a multivariate mass appraisal model that developed ratio statistics from the sold properties that were then applied to the unsold sample. This test compared the measures of central tendency and confidence intervals for the sold properties with the unsold property sample. If this comparison was also determined to be significantly different, then the conclusion was that the county had treated the unsold properties in a different manner than sold properties.

These tests were supported by both tabular and chart presentations, along with saved sold and unsold sample files.



Sold/Unsold R	esults
Property Class	Results
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

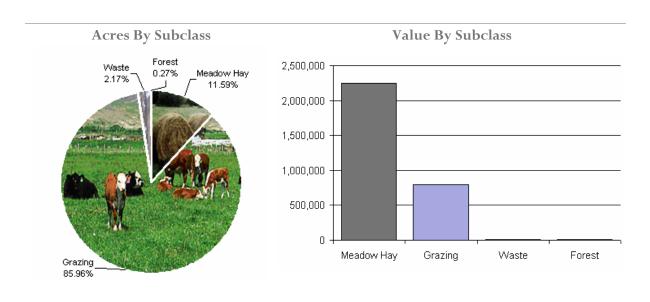
#### Conclusions

After applying the above described methodologies, it is concluded that Custer County is reasonably treating its sold and unsold properties in the same manner.

#### Recommendations



# AGRICULTURAL LAND STUDY



# **Agricultural Land**

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other lands. In addition, county records were reviewed in order to determine if: photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and locally developed yields, capacities, and expenses. Records were also checked to ensure that the commodity prices and expenses, furnished by the Property Tax Administrator (PTA), were applied properly.

(See Assessor Reference Library Volume 3 Chapter 5.)

#### **Conclusions**

An analysis of the agricultural land data indicates an acceptable appraisal of this property type. Directives, commodity prices and expenses provided by the PTA were properly applied. County yields compared favorably to those published by Colorado Agricultural Statistics. Expenses used by the county were allowable expenses and were in an acceptable range. Grazing lands carrying capacities were in an acceptable range. The data analyzed resulted in the following ratios:



	Custer County Agricultural Land Ratio Grid					
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Fotal Value	WRA Total Value	Ratio
4137	Meadow Hay	24,710	90.91	2,246,378	2,246,378	1.00
4147	Grazing	183,266	4.35	797,585	797,585	1.00
4177	Forest	582	13.47	7,840	7,840	1.00
4167	Waste	4,630	1.62	7,478	7,478	1.00
Total/Avg		213,188	14.35	3,059,281	3,059,281	1.00

# Recommendations



# **Agricultural Outbuildings**

## Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.74 through 5.77 were being followed.

#### **Conclusions**

Custer County has substantially complied with the procedures provided by the Division of Property Taxation for the valuation of agricultural outbuildings.

#### Recommendations



# SALES VERIFICATION

According to Colorado Revised Statutes:

A representative body of sales is required when considering the market approach to appraisal.

(8) In any case in which sales prices of comparable properties within any class or subclass are utilized when considering the market approach to appraisal in the determination of actual value of any taxable property, the following limitations and conditions shall apply:

(a)(I) Use of the market approach shall require a representative body of sales, including sales by a lender or government, sufficient to set a pattern, and appraisals shall reflect due consideration of the degree of comparability of sales, including the extent of similarities and dissimilarities among properties that are compared for assessment purposes. In order to obtain a reasonable sample and to reduce sudden price changes or fluctuations, all sales shall be included in the sample that reasonably reflect a true or typical sales price during the period specified in section 39-1-104 (10.2). Sales of personal property exempt pursuant to the provisions of sections 39-3-102, 39-3-103, and 39-3-119 to 39-3-122 shall not be included in any such sample.

(b) Each such sale included in the sample shall be coded to indicate a typical, negotiated sale, as screened and verified by the assessor. (39-1-103, C.R.S.)

The assessor is required to use sales of real property only in the valuation process.

(8)(f) Such true and typical sales shall include only those sales which have been determined on an individual basis to reflect the selling price of the real property only or which have been adjusted on an individual basis to reflect the selling price of the real property only. (39-1-103, C.R.S.)

Part of the Property Assessment Study is the sales verification analysis. WRA has used the above-cited statutes as a guide in our study of the county's procedures and practices for verifying sales.

WRA reviewed the sales verification procedures in 2009 for Custer County. This study was conducted by checking selected sales from the master sales list for the Jan 1, 2007 - June 30, 2008 valuation period. Specifically WRA selected 31 sales listed as unqualified. All of the sales in the unqualified sales sample had reasons that were clear and supportable.

#### Conclusions

Custer County appears to be doing an excellent job of verifying their sales. WRA agreed with the county's reason for disqualifying each of the sales selected in the sample. There are no recommendations or suggestions.

#### Recommendations



# ECONOMIC AREA REVIEW AND EVALUATION

#### Methodology

Custer County has submitted a written narrative describing the economic areas that make up the county's market areas. Custer County has also submitted a map illustrating these areas. Each of these narratives have been read and analyzed for logic and appraisal sensibility. The maps were also compared to the narrative for consistency between the written description and the map.

#### Conclusions

After review and analysis, it has been determined that Custer County has adequately

identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

#### Recommendations



# NATURAL RESOURCES

#### **Earth and Stone Products**

#### Methodology

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Natural Resource Valuation Procedures, the income approach was applied to determine value for production of earth and stone products. The number of tons was multiplied by an economic royalty rate determined by the Division of Property Taxation to determine income. The income was multiplied by a recommended Hoskold factor to determine the actual value. The Hoskold factor is determined by the life of

the reserves or the lease. Value is based on two variables: life and tonnage. The operator determines these since there is no other means to obtain production data through any state or private agency.

#### Conclusions

The County has applied the correct formulas and state guidelines to earth and stone production.

#### Recommendations



# VACANT LAND

#### **Subdivision Discounting**

Subdivisions were reviewed in 2009 in Custer County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was developed using the summation method.

Subdivision land with structures was appraised at full market value.

#### Conclusions

Custer County has implemented proper procedures to adequately estimate absorption periods, discount rates, and lot values for qualifying subdivisions.

#### Recommendations



# POSSESSORY INTEREST PROPERTIES

#### **Possessory Interest**

Possessory interest property discovery and valuation is described in the Assessor's Reference Library (ARL) Volume 3 section 7 in accordance with the requirements of 39-1-103 (17)(a) (II) C.R.S. Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Section 7: private property interest in government-owned property or the right to the occupancy and use of any benefit in government-owned property that has been granted under lease, permit, license, concession, contract, or agreement.

Custer County has been reviewed for their procedures and adherence to guidelines when

assessing and valuing agricultural possessory interest properties. The county has also been queried as to their confidence that the possessory interest properties have been discovered and placed on the tax rolls.

#### Conclusions

Custer County has implemented a discovery process to place possessory interest properties on the roll. They have also correctly and consistently applied the correct procedures and valuation methods in the valuation of possessory interest properties.

#### Recommendations



# PERSONAL PROPERTY AUDIT

Custer County was studied for its procedural compliance with the personal property assessment outlined in the Assessor's Reference Library (ARL) Volume 5, and in the State Board of Equalization (SBOE) requirements for the assessment of personal property. The SBOE requires that counties use ARL Volume 5, including current discovery, classification, documentation procedures, current economic lives table, cost factor tables, depreciation table, and level of value adjustment factor table.

The personal property audit standards narrative must be in place and current. A listing of businesses that have been audited by the assessor within the twelve-month period reflected in the plan is given to the auditor. The audited businesses must be in conformity with those described in the plan.

Aggregate ratio will be determined solely from the personal property accounts that have been physically inspected. The minimum assessment sample is one percent or ten schedules, whichever is greater, and the maximum assessment audit sample is 100 schedules.

For the counties having over 100,000 population, WRA selected a sample of all personal property schedules to determine whether the assessor is correctly applying the provisions of law and manuals of the Property Tax Administrator in arriving at the assessment levels of such property. This sample was selected from the personal property schedules audited by the assessor. In no event was the sample selected by the contractor less than 30 schedules. The counties to be included in this study are Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo, and Weld. All other counties received a procedural study.

Custer County is compliant with the guidelines set forth in ARL Volume 5 regarding discovery procedures, using the following methods to discover personal property accounts in the county:

- Public Record Documents
- MLS Listing and/or Sold Books
- Chamber of Commerce/Economic Development Contacts
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth
- Questionnaires, Letters and/or Phone Calls to Buyer, Seller and/or Realtor

The county uses the Division of Property Taxation (DPT) recommended classification and documentation procedures. The DPT's recommended cost factor tables, depreciation tables and level of value adjustment factor tables are also used.

Custer County submitted their personal property written audit plan and was current for the 2009 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use



- Businesses with no deletions or additions for 2 or more years
- Non-filing Accounts Best Information Available
- Accounts close to the \$4,000 actual value exemption status
- Accounts protested with substantial disagreement

#### **Conclusions**

Custer County has employed adequate discovery, classification, documentation, valuation, and auditing procedures for their personal property assessment and is in statistical compliance with SBOE requirements.

#### Recommendations



# WILDROSE AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

Suzanne Howard, Audit Administrative Manager

Steve Kane, Audit Statistician/Field Analyst

Carl W. Ross, Agricultural/Natural Resource Analyst

Andy Rodriguez, Field Analyst



# APPENDICES



# EARLY REPORTING RESULTS FOR CUSTER COUNTY 2009

#### I. OVERVIEW

Custer County is located in south central Colorado. The county has a total of 9,470 real property parcels, according to data submitted by the county assessor's office in 2009. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 86% of all vacant land parcels.

Comm/Ind Imp

Other

For residential improved properties, single family properties accounted for nearly 100% of all residential properties.

Res Imp

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 1.6% of all such properties in this county.

Vacant Land



#### II. DATA FILES

The following sales analyses were based on the requirements of the 2009 Colorado Property Assessment Study. Information was provided by the Custer Assessor's Office on April 22, 2009. The data included all 5 property record files as specified by the Auditor.

#### III. RESIDENTIAL SALES RESULTS

The following steps were taken to analyze the residential sales:

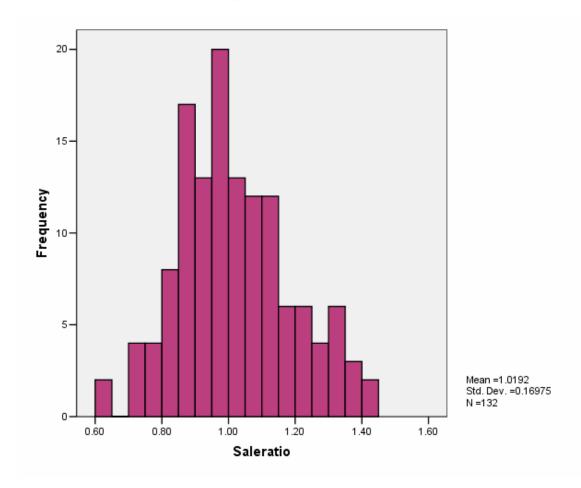
1. All sales	5,084
2. Select qualified sales (Qual = $C$ )	1,354
3. Select improved sales	536
4. Select residential sales only	446
5. Sales between January 1, 2007 and June 30, 2008	132

The sales ratio analysis was analyzed as follows:

Median	1.000
Price Related Differential	1.009
Coefficient of Dispersion	.134

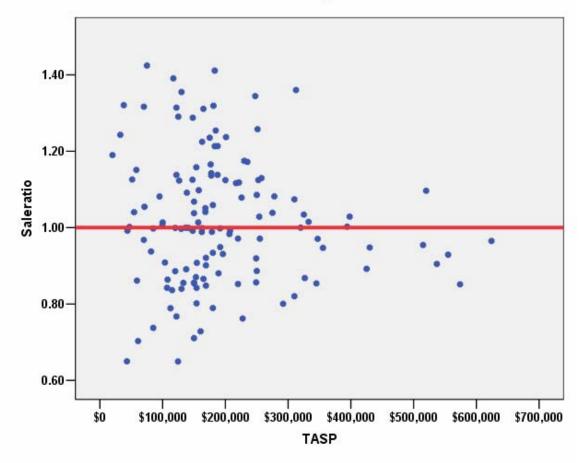
The above ratio statistics were in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall residential sales. The following graphs describe further the sales ratio distribution for these properties:











The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.

#### **Residential Market Trend Analysis**

We next analyzed the residential dataset using the 18-month sale period for any residual market trending. The following indicates that there was no statistically significant residual trend based on the sale ratios:

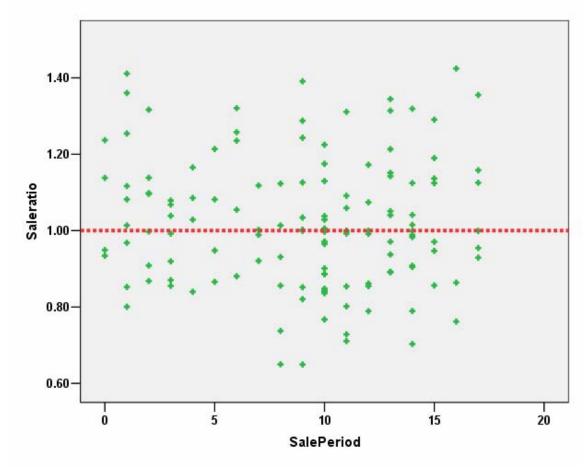
#### Coefficientsa

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.036	.031		33.009	.000
	SalePeriod	002	.003	054	622	.535

a. Dependent Variable: Saleratio







The above analysis indicated that the assessor has adequately addressed market trending in the valuation of residential properties.

#### **Sold/Unsold Analysis**

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2009 between each group and stratified the results by subdivision, as follows:

SUBDIV	Group	N	Median	Mean
40	Unsold	55	\$105	\$111
	Sold	3	\$128	\$120
233	Unsold	29	\$136	\$146
	Sold	3	\$151	\$147
420	Unsold	57	\$103	\$108
	Sold	5	\$92	\$106
500	Unsold	43	\$101	\$103



	C 11	1 -	0120	0105
	Sold	5	\$129	\$127
520	Unsold	42	\$135	\$133
	Sold	5	\$148	\$147
521	Unsold	61	\$116	\$116
	Sold	5	\$138	\$129
620	Unsold	157	\$86	\$91
	Sold	8	\$124	\$127
671	Unsold	30	\$123	\$126
	Sold	3	\$119	\$120
810	Unsold	119	\$95	\$97
	Sold	8	\$89	\$96
944	Unsold	19	\$111	\$119
	Sold	3	\$139	\$127
990	Unsold	33	\$106	\$106
	Sold	3	\$98	\$105
991	Unsold	36	\$117	\$123
	Sold	3	\$110	\$137
992	Unsold	28	\$112	\$119
	Sold	3	\$141	\$134

The above results indicate that sold and unsold residential properties were valued in a consistent manner overall.

#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

The following steps were taken to analyze the commercial sales:

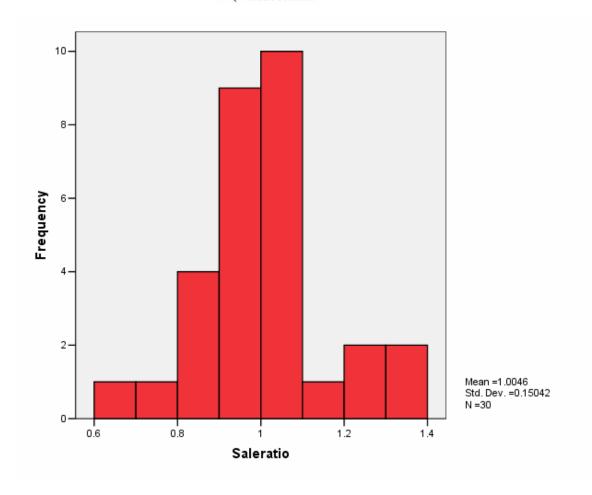
1. All sales	5,084
2. Select qualified sales (Qual = C)	1,354
3. Select improved sales	536
4. Select commercial/industrial sales only	30

The sales ratio analysis was analyzed as follows:

Median	0.996
Price Related Differential	1.033
Coefficient of Dispersion	.104

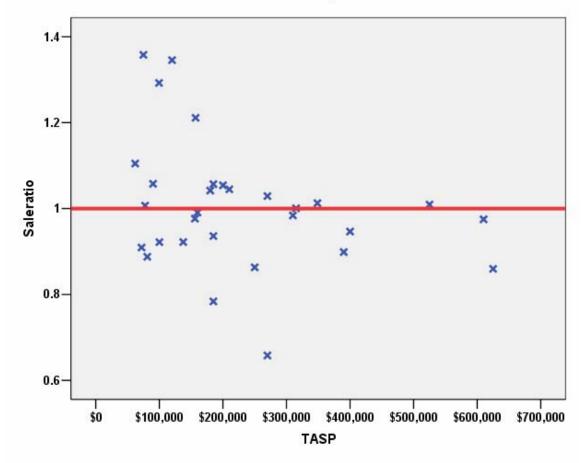
The above tables indicate that the Custer County commercial/industrial sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:











#### **Commercial Market Trend Analysis**

The assessor did not apply any market trend adjustment to the commercial dataset. The commercial sales were analyzed, examining the sale ratios across the 18 month sale period with the following results and stratifying the results by commercial subclass:

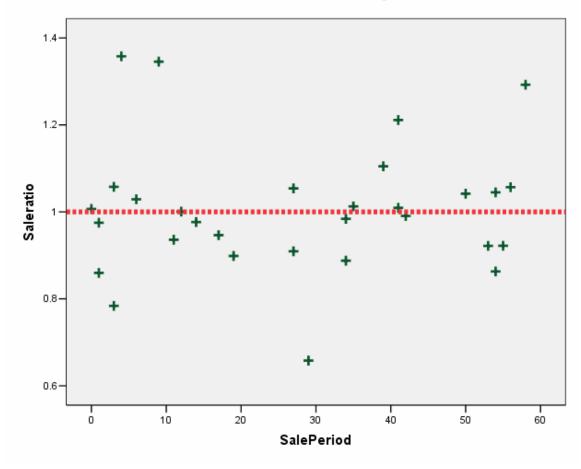
Coefficientsa

				lardized cients	Standardized Coefficients		
ı	Model		В	Std. Error	Beta	t	Sig.
ĺ	1	(Constant)	.997	.048		20.640	.000
		SalePeriod	.000	.001	.036	.192	.849

a. Dependent Variable: Saleratio







The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Custer County.

#### **Sold/Unsold Analysis**

We compared the median percent change in actual values between 2008 and 2009 for commercial and industrial properties in Custer County to determine if sold and unsold properties were treated consistently, as follows:

Group	N	Median	Mean
Sold	30	1.05	1.12
Unsold	123	1.05	1.10



#### V. VACANT LAND SALE RESULTS

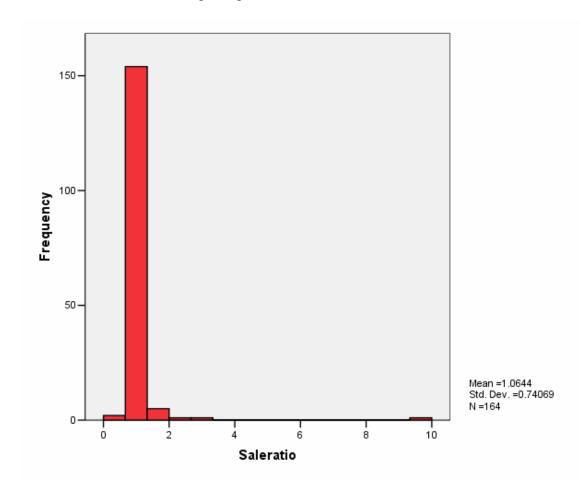
The following steps were taken to analyze vacant land sales:

1. All sales	5,084
2. Select qualified sales (Qual = C)	1,354
3. Select vacant land sales	707
4. Sales between January 2007 and June 2008	164

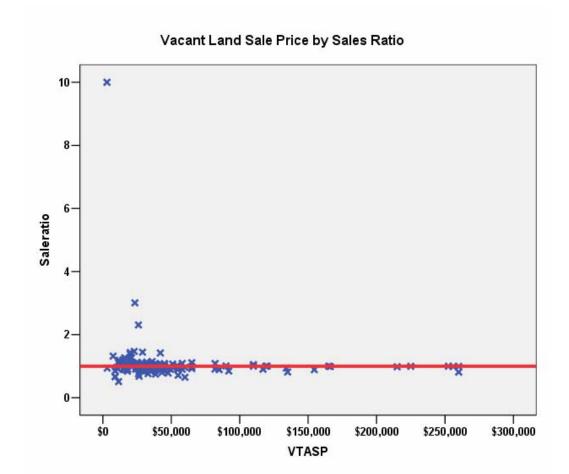
The sales ratio analysis was analyzed as follows:

Median	0.995
Price Related Differential	1.081
Coefficient of Dispersion	.175

The above tables indicate that the Custer County vacant land sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:







#### **Vacant Land Market Trend Analysis**

The assessor did apply market trend adjustments to the vacant land dataset. The 164 vacant land sales were analyzed, examining the sale ratios across the 18 month sale period with the following results:

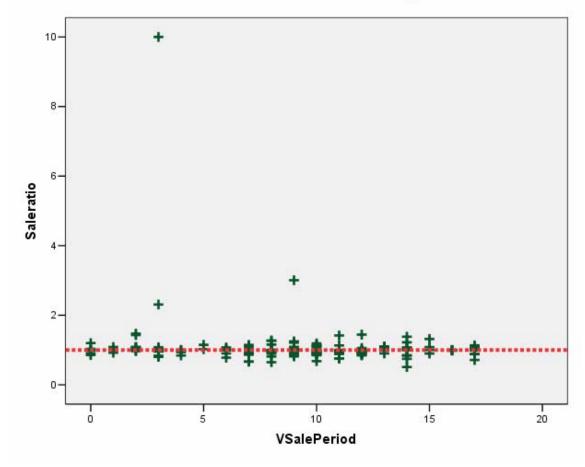
Coefficientsa

		Unstand Coeffi	lardized cients	Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.243	.127		9.793	.000
	VSalePeriod	020	.013	123	-1.581	.116

a. Dependent Variable: Saleratio







The above analysis indicated that no statistically significant market trend was present in the sales ratio for vacant land. We therefore concluded that the assessor considered market trending appropriately for this class of property.

#### Sold/Unsold Analysis

We compared the median change in actual value between 2008 and 2009 for vacant land properties to determine if sold and unsold properties were valued consistently. We performed the analysis stratifying the properties by subdivision, as follows:

SUBDIVNO	Group	N	Median	Mean
33	Unsold	29	1.00	.99
	Sold	4	1.00	1.12
180	Unsold	23	1.00	1.00
	Sold	3	1.06	1.17
184	Unsold	24	1.60	1.58
	Sold	4	1.60	1.68
186	Unsold	3	2.25	1.83



	Sold	3	2.25	2.17
455	Unsold	34	1.00	1.62
	Sold	4	3.23	3.51
460	Unsold	41	1.00	1.08
	Sold	4	2.79	2.86
475	Unsold	17	.75	.76
	Sold	2	.96	.96
520	Unsold	37	1.00	.99
	Sold	2	1.13	1.13
620	Unsold	195	1.00	1.03
	Sold	8	1.00	1.97
654	Unsold	43	.93	.93
	Sold	3	.93	.83
680	Unsold	33	1.43	1.43
	Sold	9	1.43	1.91
762	Unsold	22	.86	.92
	Sold	4	.99	1.08
940	Unsold	54	1.15	1.15
	Sold	7	1.15	1.31
941	Unsold	75	1.00	1.00
	Sold	4	1.02	1.08
942	Unsold	63	1.00	1.00
	Sold	7	1.00	1.04
943	Unsold	88	1.00	1.00
	Sold	8	1.00	1.01

The above results when stratified by subdivision indicated that sold and unsold vacant land properties were valued consistently.

#### V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the assigned actual values for agricultural residential improvements. We compared the actual value per square foot rate for this group and compared it to rates assigned to residential single family improvements in Custer County.

The following indicates that agricultural residential improvements were valued in a manner similar to the single family residential improvements in this county:



#### Descriptives

	ABSTRIMP			Statietie	Std. Error
ImpValSF	1212.00	Mean		\$86.04	\$.675
		95% Confidence	Lower Bound	\$84.72	
		Interval for Mean	Upper Bound	\$87.36	
		5% Trimmed Mean		\$85.28	
		Median		\$84.96	
		Variance		1184.329	
		Std. Deviation		\$34.414	
		Minimum		\$4	
		Maximum		\$246	
		Range		\$242	
		Interquartile Range		\$45	
		Skewness		.399	.048
		Kurtosis		.622	.096
	4277.00	Mean		\$92.56	\$1.594
		95% Confidence	Lower Bound	\$89.43	
		Interval for Mean	Upper Bound	\$95.69	
		5% Trimmed Mean		\$91.99	
		Median		\$94.30	
		Variance		1732.098	
		Std. Deviation		\$41.618	
		Minimum		\$3	
		Maximum		\$262	
		Range		\$259	
		Interquartile Range		\$61	
		Skewness		.198	.094
		Kurtosis		.038	.187

#### VI. CONCLUSIONS

Based on this statistical analysis, there were no significant compliance issues concluded for Custer County as of the date of this report.



#### **STATISTICAL ABSTRACT**

#### **Residential**

#### **Ratio Statistics for CURRTOT / TASP**

Mean		1.019
95% Confidence Interval	Lower Bound	.990
for Mean	Upper Bound	1.048
Median		1.000
95% Confidence Interval	Lower Bound	.983
for Median	Upper Bound	1.038
	Actual Coverage	95.5%
Weighted Mean		1.010
95% Confidence Interval	Lower Bound	.983
for Weighted Mean	Upper Bound	1.038
Price Related Differential		1.009
Coefficient of Dispersion		.134
Coefficient of Variation	Mean Centered	16.7%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

#### Commercial/Industrial

#### **Ratio Statistics for CURRTOT / TASP**

Mean		1.005
95% Confidence Interval	Lower Bound	.948
for Mean	Upper Bound	1.061
Median		.996
95% Confidence Interval	Lower Bound	.936
for Median	Upper Bound	1.042
	Actual Coverage	95.7%
Weighted Mean		.972
95% Confidence Interval	Lower Bound	.927
for Weighted Mean	Upper Bound	1.018
Price Related Differential		1.033
Coefficient of Dispersion		.104
Coefficient of Variation	Mean Centered	15.0%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.



#### **Vacant Land**

#### Ratio Statistics for CURRLND / VTASP

Mean		1.064
95% Confidence Interval	Lower Bound	.950
for Mean	Upper Bound	1.179
Median		.995
95% Confidence Interval	Lower Bound	.982
for Median	Upper Bound	1.001
	Actual Coverage	96.5%
Weighted Mean		.985
95% Confidence Interval	Lower Bound	.959
for Weighted Mean	Upper Bound	1.011
Price Related Differential		1.081
Coefficient of Dispersion		.175
Coefficient of Variation	Mean Centered	69.6%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

#### **Residential Median Ratio Stratification**

#### Sale Price

#### **Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	1	.8%
	\$25K to \$50K	5	3.8%
	\$50K to \$100K	15	11.4%
	\$100K to \$150K	30	22.7%
	\$150K to \$200K	37	28.0%
	\$200K to \$300K	24	18.2%
	\$300K to \$500K	14	10.6%
	\$500K to \$750K	6	4.5%
Overall		132	100.0%
Excluded		0	
Total		132	



#### **Ratio Statistics for CURRTOT / TASP**

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
LT \$25K	1.190	1.000	.000	
\$25K to \$50K	1.002	1.018	.184	26.6%
\$50K to \$100K	1.014	1.002	.131	18.7%
\$100K to \$150K	.994	.998	.157	19.6%
\$150K to \$200K	1.014	.997	.137	16.7%
\$200K to \$300K	1.059	1.002	.113	14.1%
\$300K to \$500K	.985	1.004	.088	13.3%
\$500K to \$750K	.942	1.002	.058	8.8%
Overall	1.000	1.009	.134	17.1%

# Age

#### **Case Processing Summary**

		Count	Percent
AgeRec	Over 100	12	9.1%
	75 to 100	4	3.0%
	50 to 75	10	7.6%
	25 to 50	27	20.5%
	5 to 25	63	47.7%
	5 or Newer	16	12.1%
Overall		132	100.0%
Excluded		0	
Total		132	

#### **Ratio Statistics for CURRTOT / TASP**

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
Over 100	.990	.979	.107	14.7%
75 to 100	.853	.995	.020	2.6%
50 to 75	.980	1.022	.129	19.2%
25 to 50	1.002	1.026	.129	17.5%
5 to 25	1.014	1.015	.143	17.8%
5 or Newer	1.020	1.012	.116	13.7%
Overall	1.000	1.009	.134	17.1%



# Improved Area

#### **Case Processing Summary**

		Count	Percent
ImpSFRec	LE 500 sf	11	8.3%
	500 to 1,000 sf	27	20.5%
	1,000 to 1,500 sf	33	25.0%
	1,500 to 2,000 sf	24	18.2%
	2,000 to 3,000 sf	23	17.4%
	3,000 sf or Higher	14	10.6%
Overall		132	100.0%
Excluded		0	
Total		132	

#### **Ratio Statistics for CURRTOT / TASP**

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
LE 500 sf	.892	1.014	.154	19.7%
500 to 1,000 sf	.891	1.038	.136	20.7%
1,000 to 1,500 sf	1.014	1.021	.108	14.6%
1,500 to 2,000 sf	1.064	1.022	.129	16.5%
2,000 to 3,000 sf	1.039	1.017	.130	15.7%
3,000 sf or Higher	1.022	1.022	.087	12.0%
Overall	1.000	1.009	.134	17.1%

## **Commercial Median Ratio Stratification**

#### **Sale Price**

#### **Case Processing Summary**

		Count	Percent
SPRec	\$50K to \$100K	8	26.7%
	\$100K to \$150K	2	6.7%
	\$150K to \$200K	8	26.7%
	\$200K to \$300K	4	13.3%
	\$300K to \$500K	5	16.7%
	\$500K to \$750K	3	10.0%
Overall		30	100.0%
Excluded		0	
Total		30	



#### **Ratio Statistics for CURRTOT / TASP**

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
\$50K to \$100K	1.032	.999	.132	17.5%
\$100K to \$150K	1.134	1.013	.187	26.4%
\$150K to \$200K	1.016	1.003	.083	12.0%
\$200K to \$300K	.946	1.009	.146	19.9%
\$300K to \$500K	.984	1.003	.034	5.0%
\$500K to \$750K	.975	1.004	.051	8.7%
Overall	.996	1.033	.104	15.1%

## **Vacant Land Median Ratio Stratification**

#### **Case Processing Summary**

		Count	Percent
VPredUse	50	17	10.4%
	250	12	7.3%
	300	23	14.0%
	350	73	44.5%
	400	6	3.7%
	450	8	4.9%
	1050	22	13.4%
	5200	1	.6%
	5210	1	.6%
	11350	1	.6%
Overall		164	100.0%
Excluded		0	
Total		164	



#### Ratio Statistics for CURRLND / VTASP

				Coefficient of Variation
		Price Related	Coefficient of	Median
Group	Median	Differential	Dispersion	Centered
50	.923	.992	.076	10.2%
250	.895	.977	.153	21.0%
300	1.000	1.027	.099	14.2%
350	1.003	1.023	.091	12.7%
400	.989	.999	.062	9.3%
450	.996	1.010	.024	4.3%
1050	1.056	1.409	.647	191.7%
5200	1.008	1.000	.000	
5210	1.058	1.000	.000	
11350	.994	1.000	.000	
Overall	.995	1.081	.175	74.8%